

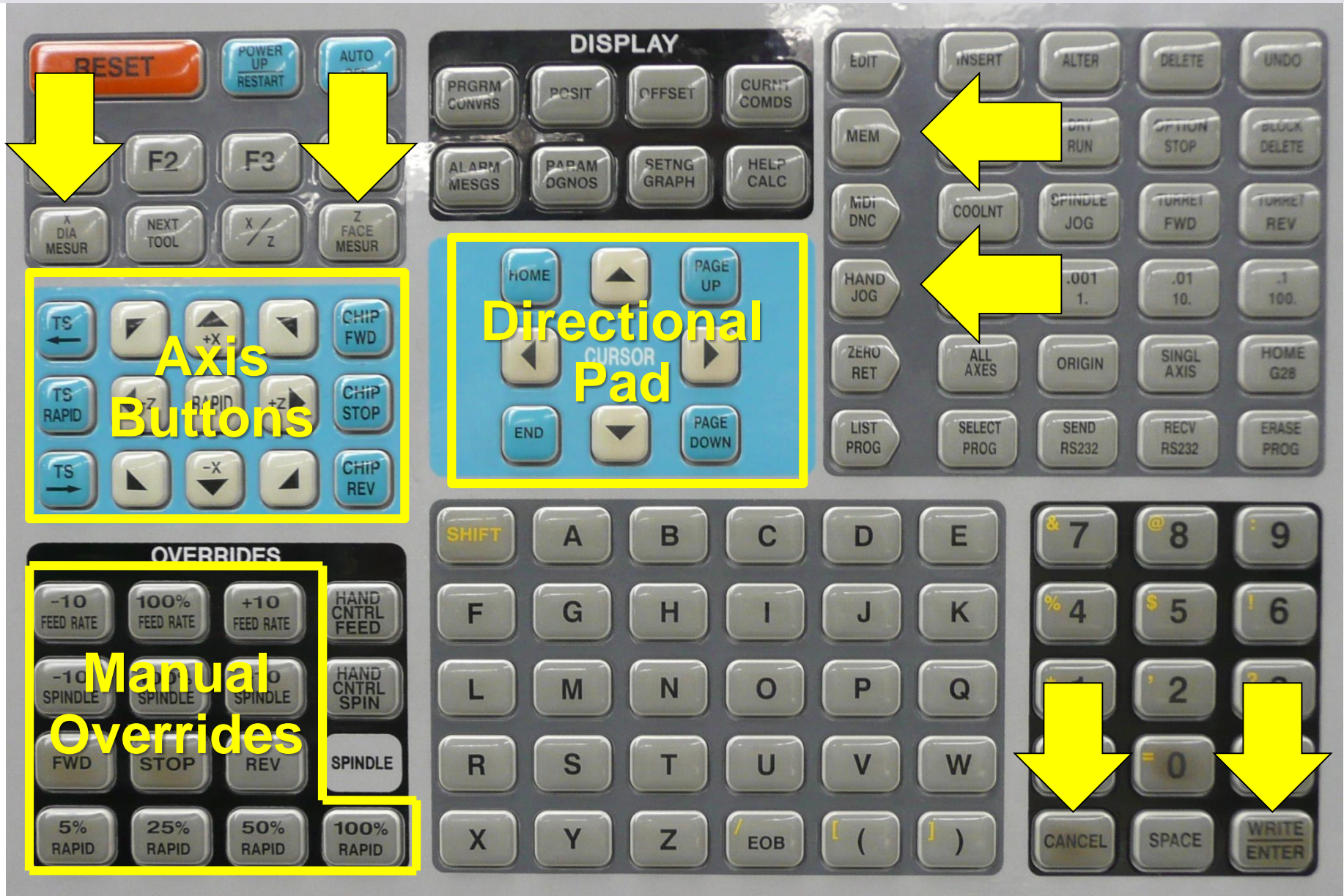
HAAS LATHE PANEL TUTORIAL



Safety First

- Never wear loose clothing or long hair while operating lathe
- Ensure that tools and workpiece are clamped securely
- Don't touch a rotating workpiece
- If something isn't quite right, press the hold button and check it out (programmed operations can be resumed)
- If something is really **wrong**, press the **BIG RED E-Stop button**
- **RAPID RULES:**
 - Ensure that the drill chuck is out of the way (far right)
 - Ensure that nothing will intercept the tool during travel
 - Press the [25%] rapid override

HAAS Lathe Commonly Used Buttons

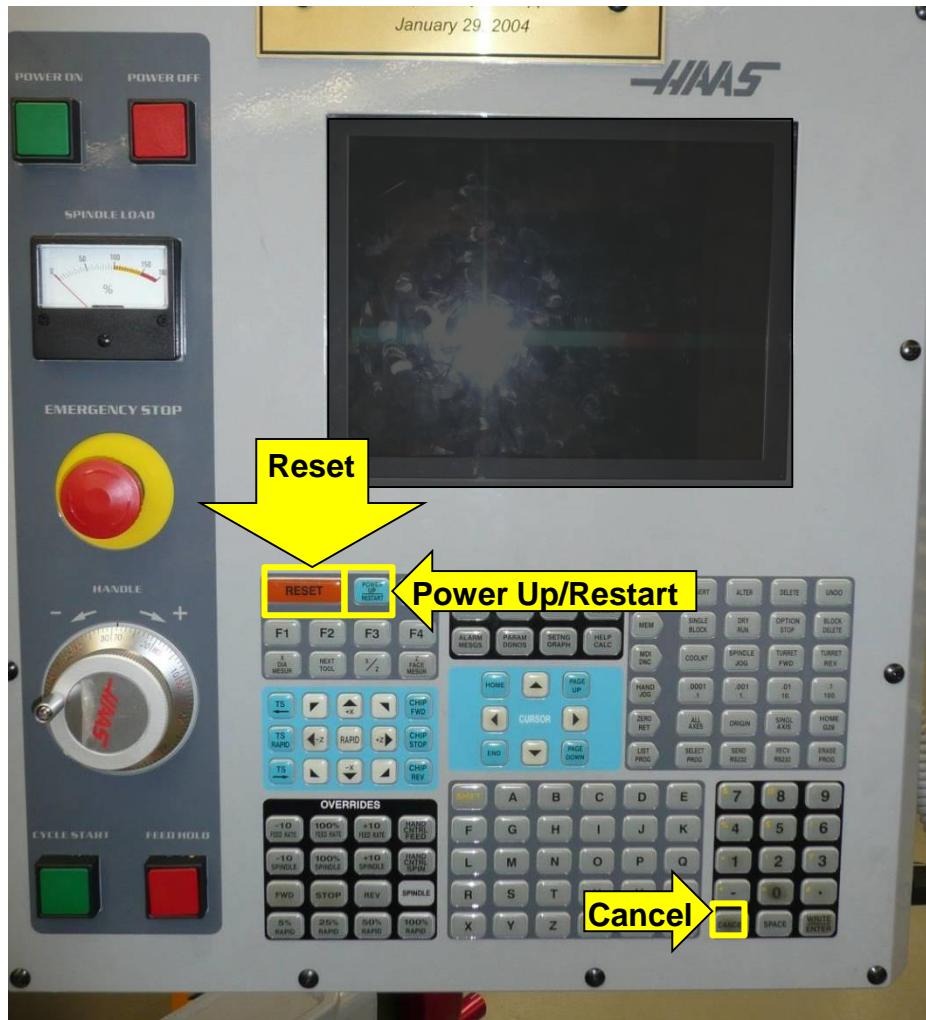


Door Button Override



- Press [Setting /Graph] from main menu (hand jog menu)
- Page down on directional pad
- Press down key on directional pad to navigate to “door hold override” (setting #51)
- Press right key on directional pad
- Press [Enter]
- Press [Hand Jog] to get back to main menu

Turning it On



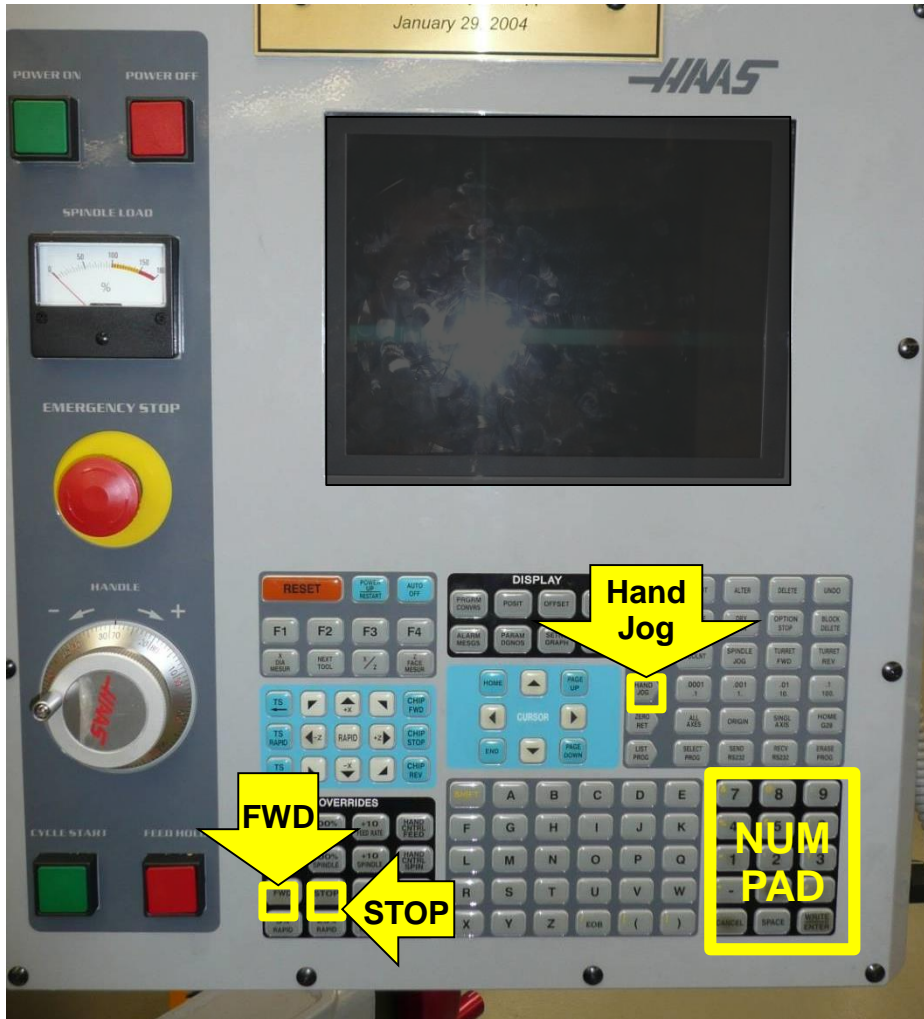
- Ensure nothing is in the way of the X or Z axis
- Press the [green] Power On button
- Wait for the screen to indicate that the machine is on and started
- Press the [Power Up/Restart] button
- **RAPID RULES:**
 - Ensure that the drill chuck is out of the way (far right)
 - Ensure that nothing will intercept the tool during travel
 - Press the [25%] rapid override
- Wait for the machine to return to home position

Turning it Off



- Stop spindle [Stop]
- **RAPID RULES:**
 - Ensure that the drill chuck is out of the way (far right)
 - Ensure that nothing will intercept the tool during travel
 - Press the [25%] rapid override
- Return tool carriage to home position [Home]
- Press auto off button

Manual Operation Page 1



- Press Hand Jog
- Use D-Pad to navigate to manual control tab, press enter
- Press spindle speed
- Enter desired speed [rpm] with numpad, press FWD
- Stop spindle with STOP

Manual Operation Page 2



- In order to lock or unlock an axis in manual mode, press [shift] then desired axis key [+/-X or +/-Z]
- Turn X or Z axis crank
 - To use the panel crank press an axis button [+/-X or +/-Z] and an increment [.1, .01, .001, .0001]
- To set current position to manual zero: Switch to operator coordinates, press axis [X or Z] on alpha pad, then press [Origin]

Feeds and Speeds Overrides

SPIND 98% FEED 98% RAPID 25%

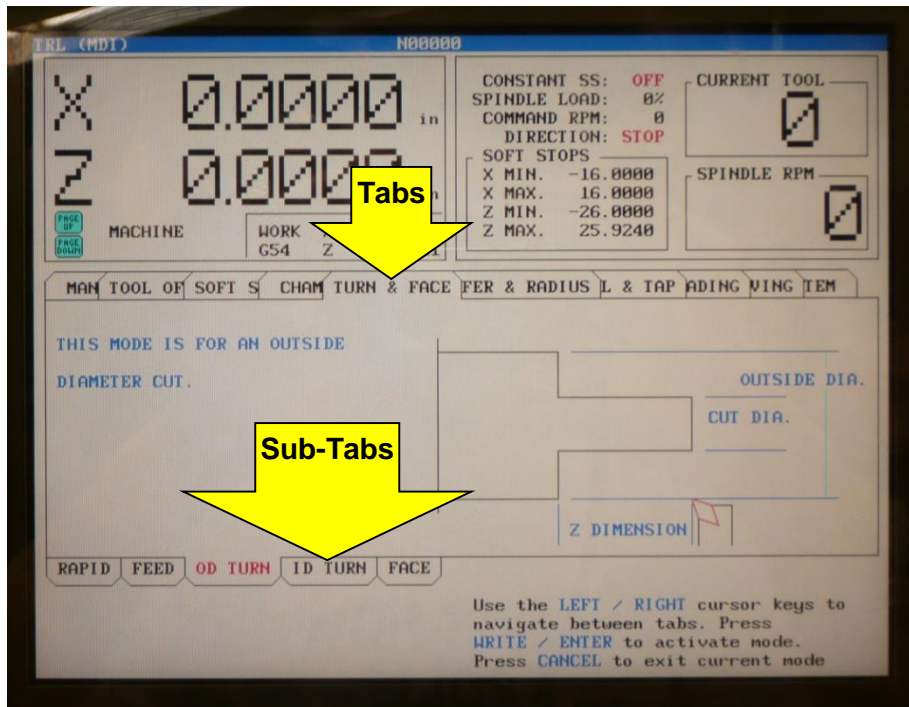
XZ-STOP

- To speed up or slow down the CNC/canned cycle feed or spindle speed rates, press the [+/-10%] feed rate or spindle keys
- To return to original feed or speed rate, press [100%] feed rate or spindle key
- When CNC or canned cycles are initiated, the tool will “rapid” to the starting position
- To reduce the rapid speed press the desired percentage

OVERRIDES

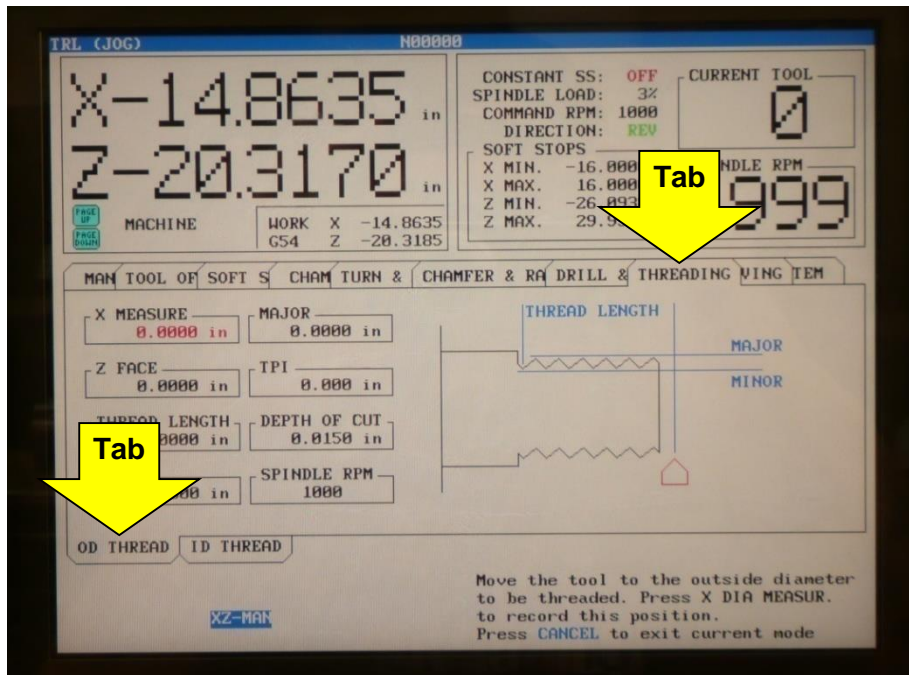


Using Canned Cycles



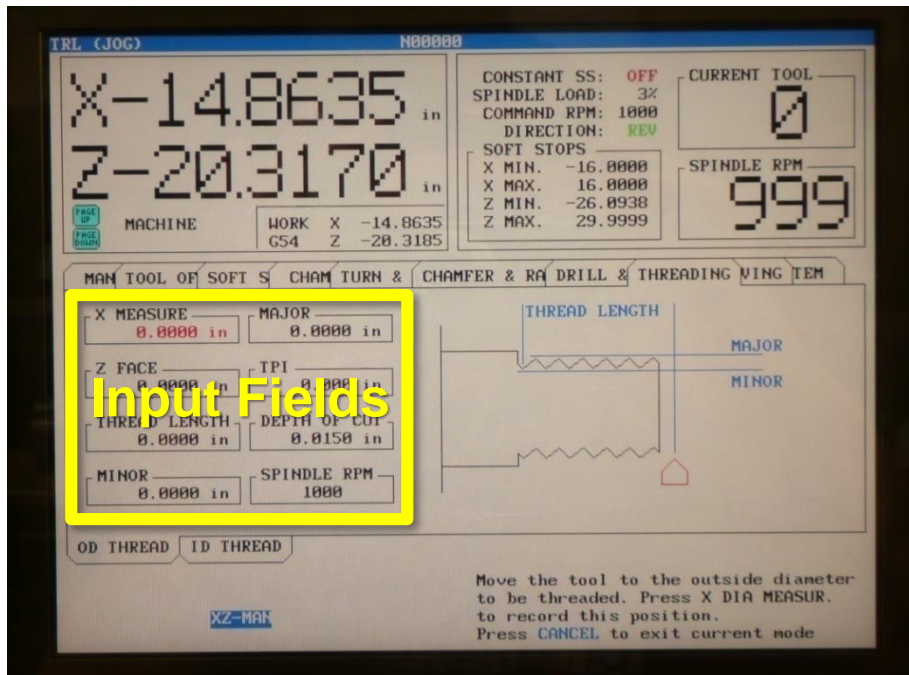
- Press Hand Jog
- **RAPID RULES:**
 - Ensure that the drill chuck is out of the way (far right)
 - Ensure that nothing will intercept the tool during travel
 - Press the [25%] rapid override
- Use D-Pad to navigate to desired cycle tab, press enter
- Use D-Pad to navigate to desired sub-tab, press enter
- Fill fields and press buttons as prompted by the cycle wizard
- If you 'hold' the cycle and need to switch to another one, press [Reset]

Cutting Threads Page 1



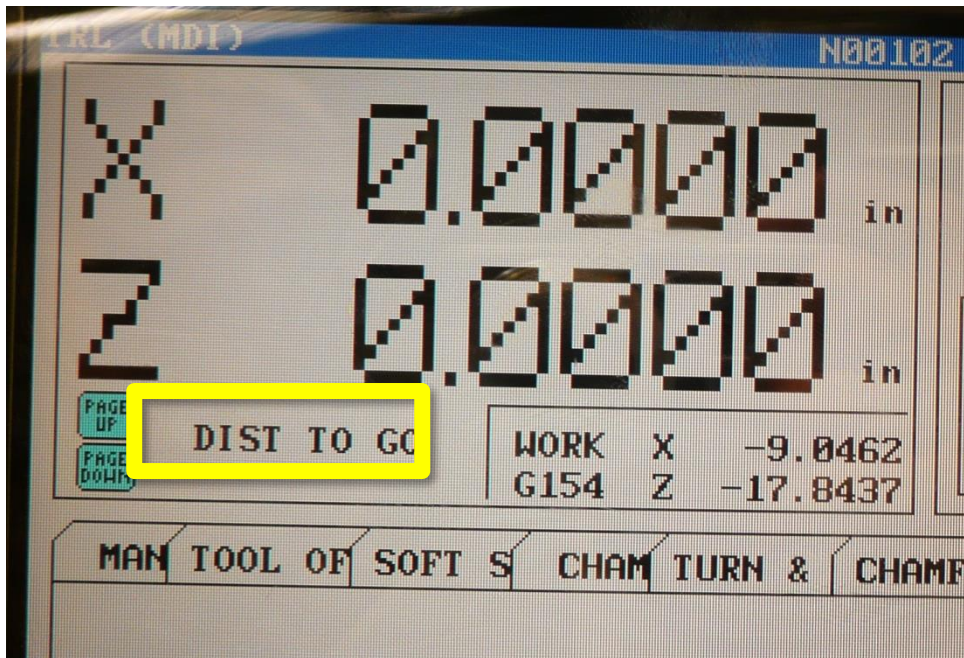
- Press Hand Jog
- **RAPID RULES:**
 - Ensure that the drill chuck is out of the way (far right)
 - Ensure that nothing will intercept the tool during travel
 - Press the [25%] rapid override
- Use D-Pad to navigate to “Threading” cycle tab, press enter
- Use D-Pad to navigate to “OD THREAD” or “ID THREAD”, press enter
- Spin stock at half of speed indicated on speeds and feeds chart ({speed in RPM} [FWD])
- Touch tool off in the X axis and press [X dia MESUR]

Cutting Threads Page 2



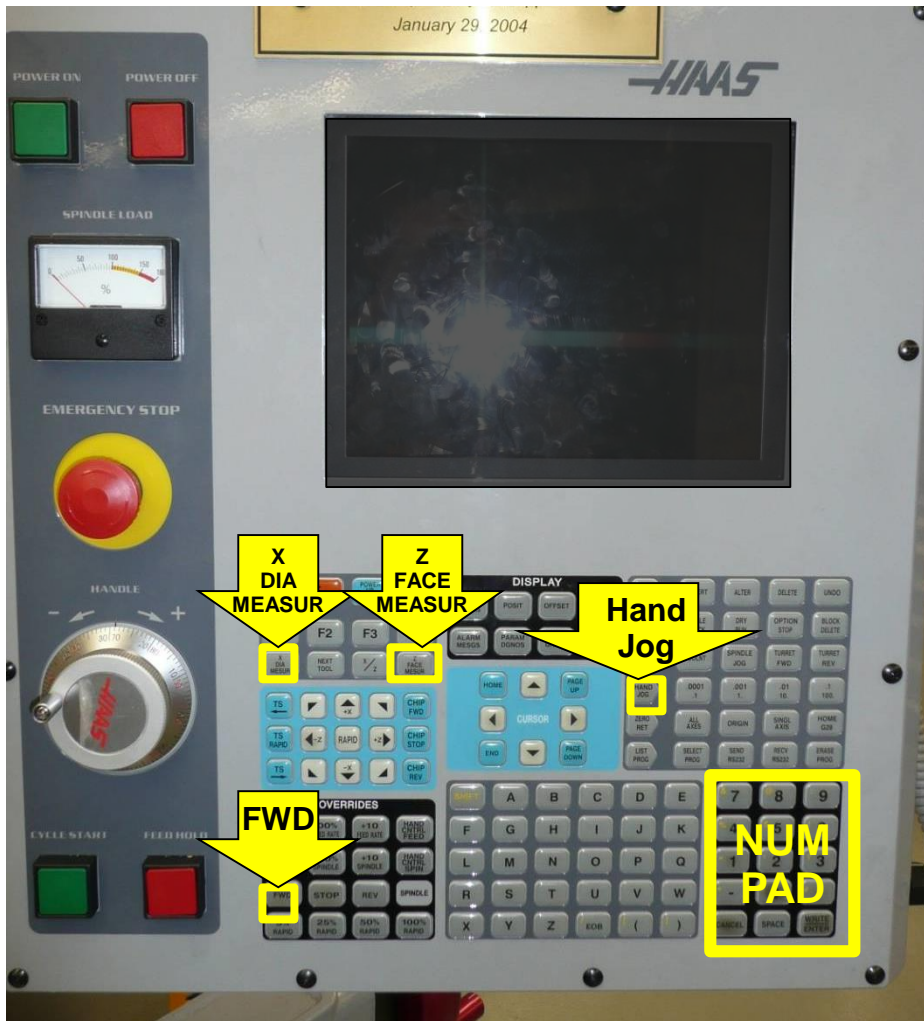
- Stop spindle, measure and input diameter ({measured diameter} [Enter])
- Restart spindle, align tool edge with edge of stock and press [Z face MESUR]
- Enter desired threads per inch
- Enter desired thread length
- Ask Russ or Mentor about Depth of Cut and Feed Rate
- Use chart on right side of panel to determine minor diameter
 - $(\text{Major Diameter} - 2 \times \text{thread height})$

Position indication modes



- Use [page up]/[page down] to cycle between modes
- Operator: indicates position relative to specified zero's
- Remaining: indicates travel left to reach (programmed) goal position
- Machine: indicates position relative to home position
- Work G154: Default CNC coordinate system

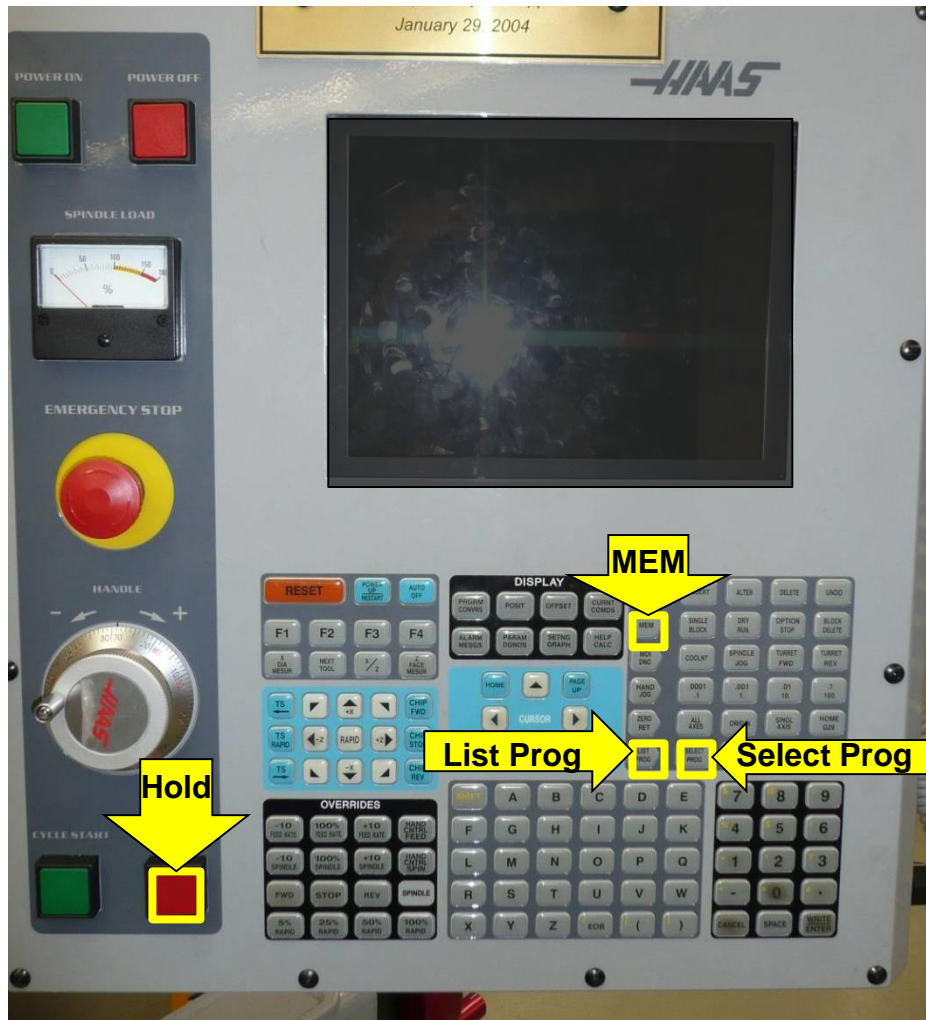
Tool Offsets (CNC Cycles)



- Press Hand Jog
- Use D-Pad to navigate to Tool offsets, press [Enter]
- Enter desired spindle speed {rpm} with num pad, press [FWD]
- Skim surface of part (use X and Z axis cranks to move tool)
- Press [X DIA MEASR] or [Z Face MEASR]
- For X axis, manually measure diameter and enter with num pad, press [Enter]

Note: Spindle must be spinning to avoid damage to delicate tools

Using CNC Cycles Page 1



- Ensure that material is secured in the spindle
- **RAPID RULES:**
 - Ensure that the drill chuck is out of the way (far right)
 - Ensure that nothing will intercept the tool during travel
 - Press the [25%] rapid override
- Transfer program from Master Cam computer (see MasterCam Tutorial)
- Have Mentor or Russ check code
- Press [List Prog] and navigate to program with D-pad, Press [Select Prog]

Using CNC Cycles Page 2



- Press [MEM]
- Press [Cycle Start]
 - Pause cycle with [red] Hold button (keep your hand near this when you first use new code)
 - Cycle can be resumed by navigating to desired block and pressing [green] Cycle Start button
- Origin can be specified to G154 or to an alternate coordinate system to allow parts to avoid interrupting the coordinate system of someone else's part.